

bikes are different than sport bikes and the latter's ability to accommodate a sound system was significantly different than the former. No agreement, however, was reached on the claims.

Claims 21 and 25 stand rejected under 35 USC §103(a) as being unpatentable over Popular Mechanics December 2000 issue ("Popular Mechanics") in view of Parts Express 1998 Catalog ("Parts Express"), page 260.

Popular Mechanics describes a touring bike, rather than a sports bike, that has a complete audio sound system. With one exception, there is little detail as to how the sound system is arranged. It has speakers in the rear on either side of the back seat backrest. The balance of the sound system appears to be located on the front of the bike, as opposed to being inside a cowling behind the rider as claimed by Applicant, according to the photograph that accompanies the article and the implications associated with the description of the location of two of the eight speakers, namely that they are mounted in the rear, implying that the other six are not. There is absolutely no description in this reference of where the audio components are located. Furthermore, the article expressly states that the motorcycle is a touring bike, and gives the impression from the tone of the article that the sound system of the bike is powerful, and, by implication, needs no augmentation from a capacitor or otherwise.

The Popular Mechanics article also describes an article from a 1912 issue of Popular Mechanics in which an Englishman placed a wireless telegraphy unit in a crate fastened to a rack on the rear of his motorcycle ("The apparatus is mounted on a rack over the rear wheel."). This information is interesting but hardly useful in the examination of the present invention. There is no teaching to put the telegraphy unit in a cowling and, indeed, there is no cowling. The telegraphy unit is obviously strapped to the rack on the back of the motorcycle because that is where it can be conveniently carried and removed as needed. There are no speakers in the front

of the motorcycle. Indeed, one would not expect speakers with a telegraphy unit. Nor would one expect a capacitor to boost dynamic highs of a telegraphy unit. The only relevance of this portion of the article is that, in a sports bike, it underscores the point Applicant makes in his own specification, namely, that there is no convenient place to put a sound system on a sportsbike other than to strap it on.

Parts Express teaches a car stereo power supply capacitor for producing large amounts of instantaneous power for an audio amplifier, suitable for eliciting “base punch and dramatically improved transient response.” There of course is no suggestion in it to use a capacitor for a sound system in a sports bike and no suggestion in Popular Mechanics to add a capacitor to either type of bike described.

It is helpful to refer to Applicant’s specification in order to put these two references in perspective.

These references are completely unnecessary to the issue of obviousness of the present invention, in part because Applicant has already disclosed the teachings of both of them in his specification and in part because Applicant has also stated in the specification that his invention is not a touring bike with a sound system strapped to the cycle and boosted by a capacitor, which is at the very most what these two references would suggest if they suggested anything at all, which, Applicant asserts, they do not.

Applicant states in his specification: “Currently, only riders of large, cruiser-type motorcycles that have electrical systems capable of supporting audio components can enjoy a sound system. Unfortunately, the very popular, smaller sports bike-type motorcycle cannot support such a system, due to limited available space and limited electrical output. Presently, a sports bike rider’s only recourse is the use of audio components that are mounted on the exterior

of the sports bike subsequent to manufacture.” The big touring bikes do not need capacitors, and the sound systems for sports bikes don’t come with sound systems at all. Popular Mechanic adds nothing to Applicant’s own teachings.

Applicant also states in his specification: “In custom-designed automobile-based sound systems, individuals have been known to use capacitors in connection with the vehicle’s battery to provide punch. These capacitors are stored in the trunk of the vehicle.” Parts Express adds nothing to this, including motivation to use capacitors in a sportsbike sound system.

Now turning, following the third office action, to the specification for information as to what the present invention really is, Applicant states: “Sound systems in sportsbikes, however, are believed to be not only completely unknown but also *contrary to the prevailing practice of minimizing the electrical demand on these types of motorcycles because of the limitations of their electrical power source*. Thus, there exists considerable need for a motorcycle sound system that is easily incorporated into the design of the motorcycle and is capable of providing the ‘punch’ desired by listeners.” [Emphasis supplied.] In addition to solving the problem of providing bass punch and improved transient response for sports bikes, Applicant also solves the problem of where to place the components of an audio system on a sports bike. He places the capacitor and all other audio components except the speakers inside a cowling behind the rider. The speakers are placed in front of the driver (and hidden in various components as describe in the specification).

Even a cursory review of the cited prior art will lead one inexorably to the conclusion that, individually and in combination, they do not teach the present invention as claimed.

Where in the Popular Mechanics article or Parts Express is the source of the motivation that additional base punch is needed to drive eight speakers of the BMW K 1200 LT? Where in

these articles is the source of the motivation to place the audio components in the back of the rider *and* the speakers in the front? Where in these articles is the motivation to provide a capacitor to boost bass punch and transient response of a sound system in a sports bike. The Popular Mechanics article certainly seems to suggest that the BMW K 1200 LT has plenty of audio capability, thereby teaching away from the combination of a capacitor and a sports bike sound system. Is there any motivation to improve bass punch or transient response to a telegraphy machine? The Attorney for Applicant finds none. There is none. If there is none, there is no *prima facie* case for obviousness. Adding Murayama to the references cited adds nothing to the other touring bike in the Popular Science article, and “capacitor” and “capacitance” do not appear in this reference.

For an invention to be *prima facie* obvious due to a combination of references, an examiner must provide “some objective teaching in the prior art or the knowledge generally available to one of ordinary skill in the art that would lead that individual to combine the relevant teachings of the references.” In re Fine, at 1598. It is essential that the examiner avoid “the subtle but powerful attraction of a hindsight-based obvious analysis,” In re Dembiczak, 50 USPQ 2d. 1614, 1617 (Fed. Cir. 1999), because the United States Court of Appeals for the Federal Circuit has made it abundantly clear that the examiners of the Patent and Trademark Office may not reject inventions by using the “tempting but forbidden zone of hindsight.” In re Dembiczak, at 1616 (quoting Loctite Corp. v. Ultraseal Ltd., 781 F.2d 861, 228 USPQ 90, 98 (Fed. Cir. 1985)). See In re Dembiczak at 1617: (“Broad conclusory statements regarding the teaching of multiple references, standing alone, are not evidence”.); McElmurry v. Arkansas Power & Light Co., 995 F.2d 1576, 1578, USPQ2d 1129, 1131 (Fed. Cir. 1993) (“Mere denials and conclusory statements, however, are not sufficient to establish a genuine issue of material

fact.”); In re Sichert, 566 F.2d 1154, 1164, 196 USPQ 209, 217 (CCPA 1977) (“The examiner’s conclusory statement . . . is unaccompanied by evidence or reasoning and is entirely inadequate to support the rejection.”) The examiner may not use the “inventor’s disclosure as a blueprint for piecing together the prior art to defeat patentability.”

Although the suggestion to combine references may flow from the nature of the problem, see Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1630 (Fed. Cir. 1996), the suggestion more often comes from the teachings of the pertinent references. See In re Sernaker, 702 F.2d 989, 994, 217 USPQ 1, 5 (Fed. Cir. 1983). Therefore, “[w]hen determining the patentability of a claimed invention which combines two known elements, ‘the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination.’ ” See In re Beattie, 974 F.2d 1309, 1311-12, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992) (quoting Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co., 730 F.2d 1452, 1462, 221 USPQ 481, 488 (Fed. Cir. 1984)).

See In re Rouffet, 47 USPQ2d 1453 (Fed. Cir. 1998): “To prevent the use of hindsight based on the invention to defeat patentability of the invention, this court requires the examiner to show a motivation to combine the references that create the case of obviousness. In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed.

“This court has identified three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art.”

There is no motivation provided by the office action, only conclusory statements. To wit: "Popular Mechanics teaches a motorcycle having a seat, audio component, and cowling." Where is the cowling with an interior taught in this reference? "The feature of having audio components mounted behind a rider was explicitly taught." But mounted in the cowling as claimed? "The wireless radio was carried within the cowling." The article states otherwise: strapped to a rack. "One of ordinary skill in the art would have applied these teachings to state of the art devices, namely sports bikes having batteries which power the motorcycle." ...because? This is a conclusion with no motivation supporting it. "It was well known at the time of invention that vehicles use batteries to power the engine and other 'on-board' equipment." How is this clear from the Popular Mechanics article? If this is official notice, let's call it that. "Therefore, it would have been obvious to one of ordinary skill in the art to utilize the battery carried by a sportsbike to power the audio components." Again, a conclusion with no motivation cited and no teaching that it would be obvious to place the audio components, powered by the battery, in a cowling behind the rider with the speakers in front of the rider, as claimed by Applicant.

The office action proceeds to describe the value of capacitors in boosting power to amplifiers and then concludes that "One of ordinary skill in the art would have capitalized on the benefit of power supply capacitors and equipped a motorcycle with an appropriate sized capacitor to fit in the rear cowling." Again, a conclusion is reached that is not based on a clear statement of motivation. Certainly nothing in the prior art cited is the source of this motivation; indeed, none exists.

Motivation (when it exists) typically comes from the references cited but it can flow from the nature of the problem to be solved. In the present application, Applicant addresses the

problem of incorporating a quality sound system into a sports bike. However, not only are not all solutions obvious but, sometimes problems themselves are not obvious. That is clearly the case here. Manufacturers of sports bikes have not put sound systems on sports bikes for the reasons stated in the specification, namely that to do so is contrary to the prevailing practice of minimizing the electrical demand on these types of motorcycles because of the limitations of their electrical power source. Furthermore, for those who want sound systems, there are existing alternatives (sound systems in helmets for example). So where is the problem? Those of ordinary skill do not go looking for problems to solve; they accept the status quo or the alternatives available unless clearly motivated to make changes.

The comments above apply to the rejection of the remaining claims in view of the two previously cited references in further view of Murayama, which of course adds nothing since it is another touring bike with a big sound system in the front.

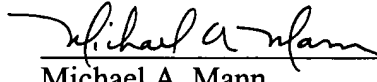
Applicant has identified a non-obvious problem (how to incorporate a good sound system into a sports bike) and claimed a non-obvious solution (put the speakers in front, perhaps in the rearview mirrors, but put the audio components behind the rider inside the cowling and include a capacitor to boost dynamic highs). None of the prior art cited discloses, teaches or suggests this problem or the solution.

In view of the foregoing amendments and remarks, Applicant believes that the present application is in condition for allowance and reconsideration of it is requested. If the Examiner

disagrees, he is requested to contact the Attorney for Applicant at the telephone number provided below.

Respectfully submitted,

Date: 7/23/03



Michael A. Mann
Attorney for Applicant
Reg. No. 32825
Nexsen Pruet Jacobs & Pollard, LLC
P O Box 2426
Columbia, SC 29202
803-253-8282
Mmann@NPJP.com

CLAIMS OF 09/721,184 WITH STATUS OF EACH CLAIM SHOWN

Claims 1-20 (Previously Cancelled)

-- 21. (Previously Added) A motorcycle sound system, said sound system comprising:

a sportsbike having a seat;

a battery carried by said sportsbike;

a cowling carried by said sportsbike and mounted behind said seat, said cowling having an interior;

an audio component carried by a sportsbike within said cowling;

means carried by said sportsbike for conducting power from said battery to said audio component;

a capacitor carried within said cowling and connected electrically in parallel with said battery so that said capacitor can supplement said battery during peak power demands of said audio component;

an amplifier carried within said cowling and in electrical connection with said battery and said capacitor;

first means carried by said sportsbike for communicating signals from said audio component to said amplifier;

at least one signal-to-audio transducer carried by said sportsbike; and

second means carried by said sportsbike for communicating signals from said amplifier to said at least one signal-to-audio transducer, said at least one signal-to-audio transducer being carried forward of said seat of said sportsbike.—

--22. (Previously Added) The motorcycle sound system as recited in claim 21, wherein said audio component is selected from the group consisting of FM receiver, compact disc player, audio cassette player, minidisc player, digital audiotape player, MP3 player, and equalizer.

--23. (Previously Added) The motorcycle sound system as recited in claim 21, further comprising:
at least one auxiliary audio component operably connected to said audio component.

--24. (Previously Added) The motorcycle sound system as recited in claim 23, wherein said auxiliary audio component is selected from the group consisting of an FM receiver, a compact disc player, an audio cassette player, a mini disc player, a digital audiotape player, an MP3 player, and an equalizer.—

--25. (Previously Added) The motorcycle sound system as recited in claim 21, wherein said at least one signal-to-audio transducer is a speaker.—

--26. (Previously Added) The motorcycle sound system as recited in claim 25, wherein said speaker is housed in an existing structure of said sportsbike, said existing structure selected from the group consisting of helmet, rearview-mirror casing, turn signal casing, brake light casing, fairing, and trunk.—

-- 27. (Previously Amended) A motorcycle sound system for a motorcycle having a battery and a seat, said sound system comprising:

an audio component;

a speaker adapted to be mounted forward of a seat of a motorcycle;

a capacitor connected electrically in parallel with a battery of said motorcycle so that said capacitor can supplement said battery during peak power demands of said audio component;

a cowling having an interior dimensioned for receiving said audio component, said audio component being received in said interior of said cowling, said cowling being adapted to be installed behind said seat of said motorcycle; and

means for communicating signals from said audio component to said speaker.—

-- 28. (Previously Amended) A motorcycle sound system for a motorcycle having a battery and a seat, said sound system comprising:

an audio component;

means for conducting power from a battery of a motorcycle to said audio component;

a capacitor electrically connected in parallel with said battery so that said capacitor can supplement said battery during peak power demands of said audio component;

a cowling having an interior dimensioned for receiving said audio component and said capacitor, said audio component and said capacitor being housed in said interior of said cowling, said cowling being adapted to be mounted behind a seat of said motorcycle; and

a speaker in operational connection with said audio component, said speaker being adapted to be mounted forward of said seat.--